

Are Graduate Schools Slighting a Major Function?

■ "Liberal education in the United States has forsaken its mission." Until the turn of the century, liberal arts colleges saw their function as being to educate the whole man, "to acquaint the student with the classical literature of the Western world, to cultivate the skills of effective reasoning, writing, and speaking, and to excite interest in and nurture the habit of reflection on the great philosophical problems of life and death." Today, "except through accident or personal recalcitrance, the programs of studies pursued by the majority of college students exhibit no common body of knowledge, intellectual procedures, or philosophical wholeness."

These are strong words, but no stronger than those their author uses in belaboring what he believes to be largely responsible for the state of affairs—the American graduate school. In the 65 pages which comprise "The Graduate School and the Decline of Liberal Education" (Bureau of Publications, Teachers College, Columbia University, \$1.50), Earl J. McGrath, former United States Commissioner of Education and now director of the Institute of Higher Education at Columbia's Teachers College, points to the graduate schools as the primary agents in leading the liberal arts colleges to abandon the function which "had been their heritage and their glory, to wit, the function of instructing young people in the Western European intellectual and spiritual traditions." It is the influence of the graduate schools, exerted in a variety of

ways, which has led to narrow specialization and vocationalization in the liberal arts colleges, charges Dr. McGrath. It is the graduate schools that tempted the liberal arts colleges to shift their emphasis from teaching to research, to confuse their role with that of graduate education itself, in short, "to lose their sense of special purpose."

Society and Liberal Education

Many people—outside the graduate schools as well as within!—will deny that the blame for liberal education's plight should be placed squarely and solely on the shoulders of the graduate schools. The same social and economic forces which gave rise to graduate education—the demands of a highly industrialized and technological society for more and more experts, professionals, and specialists—have been operating on the liberal arts colleges directly, not merely through the graduate schools. In addition, the student body of the undergraduate institutions has changed radically in kind as well as in numbers since 1900. In 1955, approximately 32 per cent of the 18-year-old population was enrolled in post-high school institutions, compared with a mere 3 per cent in 1900. It surely may be argued that the classical liberal education would not be appropriate or even possible for large numbers of these students.

In this short pamphlet, however, Dr. McGrath is dealing only with the graduate school in relation to liberal education. Other





studies—including a companion piece, “Liberal Education in the Professions”—prepared under a Carnegie grant to the Institute of Higher Education, have already been published, and others are in preparation.

In “The Graduate School and the Decline of Liberal Education” Dr. McGrath makes a strong case for his contention that the graduate schools have been a powerful, even if not exclusive, influence in changing the traditional role of undergraduate institutions. Here a look at history is instructive.

Until about the time of the Civil War, the liberal arts curriculum was rigidly prescribed. Instruction was given in the ancient languages and literature, philosophy, religion, and elementary mathematics. Almost nothing was given of the natural sciences, even less of the social sciences. If a student chose to take a modern language he usually got no credit for it, and what is more, it cost him extra money. Study of even the English language and its literature was inconspicuous.

Thomas Jefferson and other progressive minds of the late eighteenth and early nineteenth centuries agitated for instruction in the sciences, modern languages, modern history, and technical subjects such as engineering. It was not until the Civil War unleashed new educational and social forces, however, that the curriculum was modified somewhat along those lines.

Discovery Instead of Dissemination

Even with the addition of these new subjects, however, the liberal arts colleges by and large retained their ancient function of “making men—not workers, not scholars.” It was the later importation of the idea of the German university, with its emphasis on the discovery of knowledge rather than its dissemination, which contained the seeds of liberal education’s decline, according to McGrath.

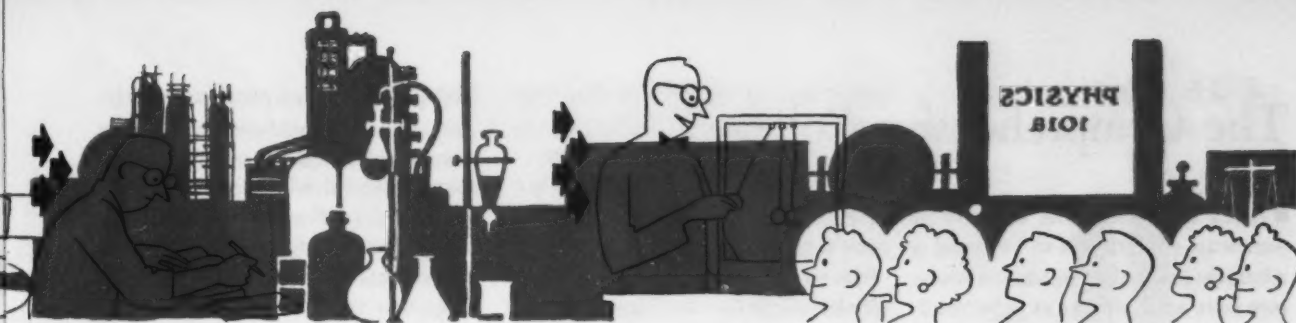
Ironically enough, the founders of American graduate schools recognized clearly the differences—and in fact conflict—between proper undergraduate and proper graduate education. Several of the greatest, including Presidents Gilman of Johns Hopkins and Harper of Chicago, fought to have the graduate schools established as entirely separate institutions manned by entirely different staffs. They lost the battle, and in McGrath’s view the graduate schools

were thus started toward dominance over the undergraduate instruction and curriculum.

This dominance, which assuredly did not come about through sinister design but only in the natural course of events, arises primarily from the fact that the graduate schools are the training grounds for the instructors in liberal arts undergraduate colleges. The graduate school, then, has two functions: one the training of research scholars, the other the training of college teachers. With some exceptions, it does not differentiate between these functions, however, but instead gives the future research scholar and the future professor identical education. And that education is appropriate for research scholars and not for college teachers. This is the essence of Dr. McGrath’s complaint.

The ordinary Ph.D. program, with its insistence on specialization in one field, upon research, and upon the importance of contributing “new” knowledge—no matter how minute or in fact unimportant that contribution might be—is not the most suitable preparation for undergraduate college teaching, he holds. But this is not all. The immense prestige attached to these values in the graduate schools, coupled with a corresponding lack of emphasis upon the teaching function as such, ensures that these attitudes and mores are carried over into the undergraduate institutions by the teachers and administrators whom the graduate schools prepare. It is in this way, and not through conscious or evil machinations on the part of the graduate schools, that the liberal arts colleges have lost the vision of their traditional mission and have adopted the values which are appropriate only to the graduate training of research scholars.

That this has happened is evident, Dr. McGrath claims, not only in view of the introduction of vocational education into the undergraduate institutions, but in the highly specialized courses offered even within the traditional liberal arts subjects. A man who spent 6 or 8 or 10 years getting a Ph.D. in history, for example, who wrote his dissertation on a five-year period of one of the Tudors’ reigns, is more than likely to want to make use of his very thorough knowledge of that period. Hence the catalogues of most liberal arts colleges are heavily sprinkled with offerings which, although bona fide liberal arts courses,



are probably more specialized than any undergraduate needs to take.

In addition, "the material, the psychic, and the social rewards of the teaching profession now go largely to those who conform to the pattern of conduct prescribed by the graduate schools." The publish-or-perish syndrome exists in liberal arts colleges as well as universities, and in view of this, it is no surprise that many faculty members "occupy themselves with research activities often resulting in nothing which by any stretch of the imagination could be called an original contribution to knowledge." And in teaching the professor generally prefers to concentrate not on undergraduate instruction for the run of college students but rather on the teaching of departmental majors.

Dr. McGrath has a suggested cure for the illness which he sees as debilitating liberal education. He suggests that programs for students who intend to be college teachers be somewhat different from those for future research scholars. "Of all the professions, only college teaching requires a type of training which bears little relationship to future practice," he says. For future teachers, graduate study should not be nearly as specialized as it is—and properly so—for research scholars. Yet, "with notable exceptions, the graduate experience does not cultivate the capacity for the inter-relation of facts and theories which is indispensable in successful undergraduate teaching." Someone who is going to teach sociology should have experience also in the related fields of economics, psychology, and political science. A physics teacher should study chemistry, geology, and astronomy.

The Ph.D. Dissertation

An important bottleneck obstructing the flow of future college teachers is the nature of the Ph.D. dissertation commonly required. Dr. McGrath claims that the word "research" is used too narrowly to refer only to the type of investigation which results in an "original" contribution to knowledge. He points out that another procedure in advancing knowledge is "concerned not with analysis, with breaking up phenomena into smaller and smaller constituent units, but rather with the reverse, with synthesis or the reassembling of facts into more comprehensive meaningful units." It is this kind of broader,

synthesizing research that prospective teachers' dissertations should be based on, Dr. McGrath believes.

He also would provide future teachers with a seminar in theory and practice in which they would explore the significance of higher education in our national life. He points out that a considerable body of fact and opinion exists relating to the history and philosophy of education, teaching practices, the mechanics by which colleges and universities are administered and governed, the place of the teacher's own subject in the student's total undergraduate education, etc. Most teachers learn these things through casual experience or trial and error—a time-wasting process.

The Hope for Reform

Finally, the recommendation is made that prospective teachers serve an apprenticeship in the classroom under a skillful teacher.

Dr. McGrath is convinced that these changes would not only improve the quality of undergraduate teaching but would draw increasing numbers of students into preparing for such work. Many people who love to teach do not love to do research, and the Ph.D. program as presently constituted does not appeal to such students.

Yet, Dr. McGrath acknowledges, his suggested reforms are neither new nor radical. Many distinguished educators have suggested such changes over a period of years. Why does he think there is a chance they might be acted upon now?

He believes that the growing public awareness and concern for the general state of education, coupled with the imminent shortage of college teachers, makes the time ripe. He directs his appeal primarily to the trustees of the colleges and universities. They, backed by a concerned public, and working hand in hand with the administration and faculty, are in the best position to start such a move.

If they do, Dr. McGrath is confident that we can recruit enough teachers to fill the urgent demand in the years ahead. What is more, these dedicated teachers can help restore undergraduate liberal education to its proper function of preparing men, in Milton's words, "to perform justly, skillfully, and magnanimously all the offices, both private and public, of peace and war."

The Comprehensive College

■ Amid the bewildering diversity of American education is to be found a relatively new public institution whose own roles are so diverse as to be bewildering. Strictly a twentieth-century and American phenomenon, this institution, taken collectively, now enrolls almost a third of all college freshmen who are in public colleges and universities; it also offers educational opportunities to countless adults. It is to be found in most states of the Union, but unevenly distributed: it is almost absent from New England, while in one state, California, almost 50 per cent of its total enrollment is concentrated. The aims and abilities of its student body vary enormously; so do the types of educational programs it offers.

This institution is the junior college, or community college, or technical institute. By whatever name it is known, it is a two-year institution offering the 13th and 14th years of education—sometimes technical, sometimes academic, sometimes commercial—to a heterogeneous student body, while at the same time giving special adult courses and providing other community services.

Numbers and Importance

The growth of the junior college, both public and private, has been extraordinarily rapid. It got its start at the turn of the century. By 1921 there were 207; by 1938, 575. In 1957, the total number had increased to 667. Although only 59 per cent of these are public, they contain 90 per cent of the total enrollment.

Paralleling their growth in numbers has been their growth in importance as a novel figure on the national educational scene and as a force influencing other parts of the higher educational system. In those states in which they are numerous, the public junior

colleges, which generally must accept any high school graduate and charge little or no tuition, have had a profound effect on other institutions of higher education. A former president of the University of California declared flatly that "without the excellent junior colleges that have been developed" his university "would hardly have been able to establish and maintain its present high standards of admission and graduation. . . . Certainly class size could not have been held to a reasonable level, nor could the need for land and buildings been kept within bounds."

It is almost certain that within the decade ahead, by the end of which college enrollments may have doubled, the junior colleges will be playing an even more important role on the educational stage. What should that role be? Do the junior colleges really strengthen American higher education? Do they achieve their objectives? What are the best patterns of organization, finance, and control; how can their program be integrated with those of other institutions? What conditions are necessary if they are to perform a unique function?

These are some of the questions Leland L. Medsker, of the University of California's Center for the Study of Higher Education, sets out to answer in *The Junior College: Progress and Prospects*, to be published in March by the McGraw-Hill Book Company as part of the Carnegie Series in Education. The Center is financed with Carnegie funds.

Dr. Medsker's book is based on a study of 76 public two-year institutions in 15 states, chosen to reflect a variety of organizational patterns. An astonishing variety does exist, but three patterns are the most common. In the first case, the junior or community

college is locally controlled and supported, with or without state aid; in the second, the junior college or technical institute is wholly controlled and supported by the state; in the third case, the two-year college is actually an extension center of a four-year college or university. Even within individual states the patterns vary; in some states two or more patterns are in operation at the same time.

Diversity of Offerings

Rivaling and in fact surpassing the organizational patterns in terms of diversity are the declared purposes of the junior colleges. Most of the two-year colleges claim to be comprehensive, offering lower-division work for students who plan to transfer later to four-year institutions while at the same time offering "terminal" programs for those who do not plan to transfer. Most of them also stress adult education, special community services, guidance, remedial work for many students, and general education.

However it is organized and whatever its declared purposes, there is no doubt that the public junior college as an institution has served to provide greater equality of educational opportunity. There is almost nothing to bar any youngster who lives in a town where one is located from getting at least two years of education beyond high school—and he can choose the kind of education he wants to get. Tuition, when it is charged, is very low; some states, California for one, charge none at all. The fact that the student can live at home also gives the junior college an economic advantage over other institutions, even state universities where tuitions are low but where a student has to pay transportation and living costs.

What Professor Medsker refers to as "the democratization of higher education" is served by the junior college in another important way: it permits some students to enter college when

their academic backgrounds would preclude their entering other institutions with higher admission standards. This is particularly striking in the case of California, where in 1955 only 11.4 per cent of the graduates of California high schools met the requirements for enrolling at any of the eight campuses of the University of California, and where 56.4 per cent were not eligible to attend either the University or the state four-year colleges. (It should be remembered that a cause-and-effect relationship is in operation here, since, as was pointed out earlier, the University was able to maintain extremely high standards only because of the outlets provided by the junior and state colleges. Many—perhaps most—state universities are required to admit all high school graduates.)

Two Major Roles

By offering a great variety of educational programs, the junior colleges have actually broadened the total scope of offerings available at the college level. For those students who come for two years of study and training that will prepare them to work at a job or at homemaking, many different courses, which frequently are geared to local industries, are available. For those who wish to transfer later to a four-year college, courses equivalent to lower division programs may be had. These Professor Medsker sees as the junior colleges' two most important roles: to train semi-professional and skilled technicians for employment, and to screen students who are capable of higher study for the colleges and universities. This second function is as important as the first, for, although many people think the junior college exists primarily to serve the poorer students, Dr. Medsker's study reveals that there is a great overlap between the abilities of students in two-year and four-year institutions. What is more, those junior college students who do transfer later do

very well as a whole in their upper division work.

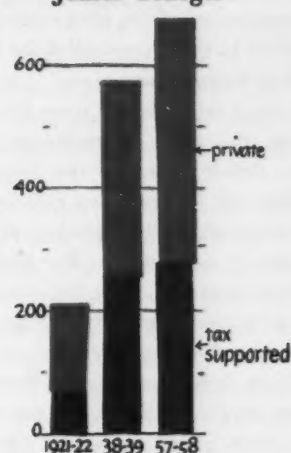
Although most of the junior colleges lay heavy stress on the terminal programs they offer, only about one-third of the students register in such courses. Two-thirds declare that they intend to transfer later to four-year institutions; yet on the average only one-third actually do so. This discrepancy points up a major necessary function of the junior college: to provide both opportunities and guidance for the large numbers of students who, for whatever reasons, do not achieve their original stated aim—to transfer. Whether their academic abilities do not accord with their academic aspirations, whether they are subject to parental pressures, whether they are simply victims of the confusion in aims common to young people—these students deserve thoughtful guidance to enable them to make sound educational and vocational decisions.

Guidance Programs Needed

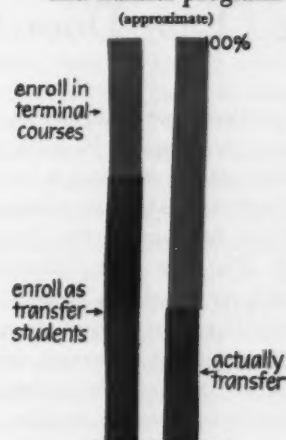
Dr. Medsker finds it impossible to generalize about how well the junior colleges perform this critical function. To do it well they need a good guidance program coordinated with a student activity program, a good records system, and continuous study of student motivations and characteristics. In some colleges such student personnel services are a strong point, but not in all, and without them, Dr. Medsker emphasizes, the value of the two-year college in higher education is thrown into question.

The future of the junior college, which one way or another will be decided within the next ten years as the student boom reaches its peak, depends to a large extent on how certain issues pertaining to all higher education are resolved by the public and by the states. We must decide whether to absorb the numbers by expanding the capacities of the four-year colleges, or by decentralizing edu-

Growth in Number of U. S. Junior Colleges



Students enrolling in terminal and transfer programs



Growth in number of special and adult students



cation by making greater use of two-year colleges, or both. Except for some sparsely settled states, most study commissions to date have called for some kind of decentralized plan.

Even if this is settled upon by most states, the state governments must then decide whether the two-year college will be organized as a locally or state-controlled institution, or as a branch of a university. Dr. Medsker believes that the university extension center pattern does not serve the best interests of either the state or the students. It is necessary that the states make careful studies of the comparative costs of education in different

types of institutions. When a state supports local junior colleges, he points out, it should make them part of a coordinated, comprehensive plan for a state-wide system of higher education.

"No unit of American higher education is expected to serve such a diversity of purposes, to provide such a variety of educational instruments, or to distribute students among so many types of educational programs as the junior college," says Dr. Medsker. The states and the public must make a conscious search for ways to strengthen it if it is to continue to serve as an equalizer of educational opportunity.

percentage of San Jose's students have chosen to enroll in that program. Thus the college has been compelled to expand its pre-transfer program to accommodate the great majority of its students. In the junior college, or at least San Jose Junior College, the students, not the administration, determine the curricula.

Of the large numbers who registered as transfer students, only about one-third did transfer; of these, 29 per cent had come to the junior college after flunking out of San Jose State College. Other relevant statistics are these: from 1953 to 1957 an average of 30 per cent of all students who enrolled in the fall term had, by mid-year, transferred or left the college without graduating. And by the end of the college's fourth year of existence, when all students who had entered by the beginning of the third year would normally have graduated, fewer than one-sixth had remained and completed graduation requirements.

From such figures, it becomes clear that one of the College's major responsibilities is to know the characteristics and abilities of its student body and to offer both training and advice which are relevant to those characteristics and abilities. In terms of academic aptitude, its students do not stand up well when compared with the national college-going student body. In 1955, college aptitude examinations showed that the median score of pre-transfer students at San Jose was at the 36th percentile on the national scale. On English and mathematics achievement tests, students entering San Jose in 1955 had an achievement level equal to the first two years of high school.

Thus San Jose Junior College is necessarily preoccupied with how to handle a preponderance of students whose desire to transfer to a four-year college is not matched by an ability to do so. The College takes a number of steps to let students know how they are doing and to try to show them

The Open Door College

■ The problems and potentialities of all junior colleges appear in dramatic light when they are examined in detail in one institution. This kind of examination has been made by Burton Clark in *The Open Door College: A Case Study*, published this month by McGraw-Hill as part of the Carnegie Series, also the result of research done at the Center for the Study of Higher Education under Carnegie auspices.

In 1953, San Jose Junior College was established in a thriving city at the foot of San Francisco Bay. It is about 50 miles from Berkeley, home campus of the University of California; it is only three miles away from San Jose State College, one of the 13 state-supported four-year colleges. The existence and nearness of both these institutions should be borne in mind in interpreting the experiences of San Jose Junior College.

Like the 63 other public junior colleges in California, San Jose is required to accept any high school graduate who applies for admission. (This is in contrast to the state university's admissions policies, which are

extremely selective; those of the four-year state colleges are quite selective, with less than 50 per cent of California's high school graduates being eligible.)

In California the junior colleges are constitutionally part of the public schools and are, in fact, legally defined as secondary schools. Therefore San Jose Junior College falls administratively under the control of the local public school government, the San Jose Board of Education, which is consequently responsible for education from kindergarten through the 14th year.

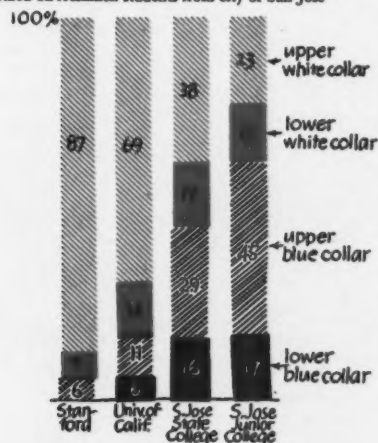
When San Jose Junior College opened its doors, it was prepared to offer both a two-year lower division pre-transfer program and a two-year terminal vocational and technical program, in addition to adult education, which is encouraged by the state. The terminal program, however, had been emphasized by the Board of Education in planning for the college, and it was for this course that the administration had chiefly prepared. Contrary to the expectations of both the Board and the administration, however, only a small

what opportunities, other than transferring, are open to them. All students must take a specially designed course called "Orientation to College," and much emphasis is laid on counseling, which 80 per cent of the faculty believe to be of importance equal to, or greater than, instruction. Since Dr. Clark's study covers only the first four years of San Jose's existence, it is impossible to judge yet how effective these devices may be in persuading students to make appropriate educational decisions.

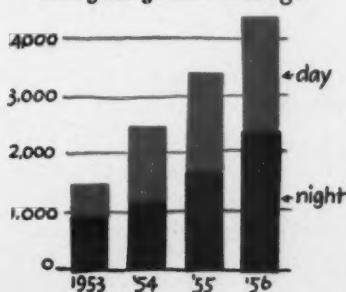
Because of the special conditions existing in the state of California and in the city of San Jose itself, San Jose Junior College may not be typical of all institutions of its kind. Dr. Clark's sociological analysis of this one school, however, reveals much which will be relevant to all.

Enrollments by Father's Occupation in Four California Colleges

based on freshmen students from city of San Jose



Fall Enrollments — San Jose Junior College



Administrators for Our Colleges

■ Until fairly recently, you didn't study to become president of a college any more than you studied in college to be President of the United States. You went along, took your Ph.D. in an academic subject, taught awhile, and finally were enticed or dragooned into becoming a dean or a president. Maybe you even sought the honor, though in a less blatant way than do candidates for the Presidency. However it happened, you suddenly ended up as an "academic administrator" with little sound knowledge of what administration was all about, and certainly without any formal preparation for it.

Now more and more attention is being given to the training of college administrators. The University of Michigan's Center for the Study of Higher Education, established with Carnegie funds, is now in the second full year of a program designed to produce administrators who, building on a firm academic background, also have learned some administrative theories and practices.

The Center's program, which enrolls a number of doctoral candidates as well as a few post-doctoral fellows each year, is based, not surprisingly, on the philosophy that the vital role of a dean or president is to provide educational leadership. In order to do this, they must have the confidence of their faculties; in order to have this confidence, they must have substantial academic training.

Thus the Center encourages graduate students in any academic field, from zoology to sociology, to elect professional courses in higher education so that they may become good administrators if the lightning should strike. It encourages those students who are actually majoring in higher education to acquire either a college

teaching major or a broad general education. And for some students it arranges an interdepartmental degree program.

The Center holds that the student should have two more elements in his program. One is to know something of the history and philosophy of higher education and to have some understanding of the learning process. The other, of course, is to know something about the functional aspects of administration, including, as might be expected, the subject of financing higher education.

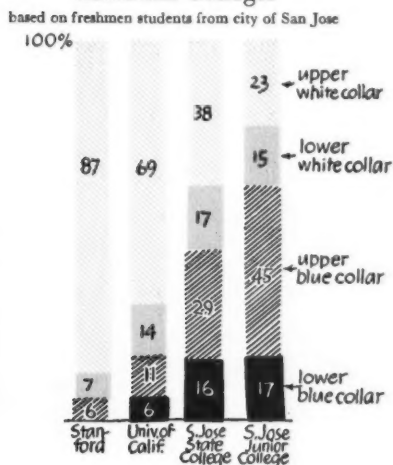
The post-doctoral fellowships are given to people who have had at least three years of college teaching or administration. They are brought to Ann Arbor to "intern" for a year in one of the University's administrative offices, and are also allowed to take courses, do research, and join in seminars and other activities of the Center. There were five fellows in 1958-59: one the president of a small denominational college, one the dean of men in a state university, another dean of men in an independent college, two professors in teachers colleges. Each was allowed to follow his own special interests. One interned in the office of the dean of the college of literature, science, and the arts, serving as a virtual assistant to the dean. Another, interested in student personnel administration, spent appropriate parts of his internship in the offices of the dean of men, dean of women, student activities office, and so on.

Whether academic administrators can be successfully "trained" is perhaps an open question. But with the increasing demands for educational facilities, the ranks of administrators will have to be expanded, and it seems worth while to look for ways to prepare them.

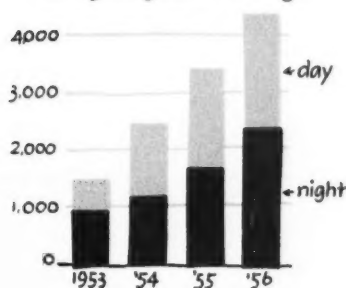
what opportunities, other than transferring, are open to them. All students must take a specially designed course called "Orientation to College," and much emphasis is laid on counseling, which 80 per cent of the faculty believe to be of importance equal to, or greater than, instruction. Since Dr. Clark's study covers only the first four years of San Jose's existence, it is impossible to judge yet how effective these devices may be in persuading students to make appropriate educational decisions.

Because of the special conditions existing in the state of California and in the city of San Jose itself, San Jose Junior College may not be typical of all institutions of its kind. Dr. Clark's sociological analysis of this one school, however, reveals much which will be relevant to all.

Enrollments by Father's Occupation in Four California Colleges



Fall Enrollments — San Jose Junior College



Administrators for Our Colleges

■ Until fairly recently, you didn't study to become president of a college any more than you studied in college to be President of the United States. You went along, took your Ph.D. in an academic subject, taught awhile, and finally were enticed or dragooned into becoming a dean or a president. Maybe you even sought the honor, though in a less blatant way than do candidates for the Presidency. However it happened, you suddenly ended up as an "academic administrator" with little sound knowledge of what administration was all about, and certainly without any formal preparation for it.

Now more and more attention is being given to the training of college administrators. The University of Michigan's Center for the Study of Higher Education, established with Carnegie funds, is now in the second full year of a program designed to produce administrators who, building on a firm academic background, also have learned some administrative theories and practices.

The Center's program, which enrolls a number of doctoral candidates as well as a few post-doctoral fellows each year, is based, not surprisingly, on the philosophy that the vital role of a dean or president is to provide educational leadership. In order to do this, they must have the confidence of their faculties; in order to have this confidence, they must have substantial academic training.

Thus the Center encourages graduate students in any academic field, from zoology to sociology, to elect professional courses in higher education so that they may become good administrators if the lightning should strike. It encourages those students who are actually majoring in higher education to acquire either a college

teaching major or a broad general education. And for some students it arranges an interdepartmental degree program.

The Center holds that the student should have two more elements in his program. One is to know something of the history and philosophy of higher education and to have some understanding of the learning process. The other, of course, is to know something about the functional aspects of administration, including, as might be expected, the subject of financing higher education.

The post-doctoral fellowships are given to people who have had at least three years of college teaching or administration. They are brought to Ann Arbor to "intern" for a year in one of the University's administrative offices, and are also allowed to take courses, do research, and join in seminars and other activities of the Center. There were five fellows in 1958-59: one the president of a small denominational college, one the dean of men in a state university, another dean of men in an independent college, two professors in teachers colleges. Each was allowed to follow his own special interests. One interned in the office of the dean of the college of literature, science, and the arts, serving as a virtual assistant to the dean. Another, interested in student personnel administration, spent appropriate parts of his internship in the offices of the dean of men, dean of women, student activities office, and so on.

Whether academic administrators can be successfully "trained" is perhaps an open question. But with the increasing demands for educational facilities, the ranks of administrators will have to be expanded, and it seems worth while to look for ways to prepare them.

New Trustee

Malcolm A. MacIntyre of New York was elected to the board of trustees at the annual meeting in November. He is president of Eastern Air Lines.

A native of Boston, Mr. MacIntyre was graduated from Yale University, where he was elected to Phi Beta Kappa. He attended Oxford University as a Rhodes Scholar. After receiving the J.S.D. from Yale, he practiced law in New York City.

He served overseas in the U. S. Army Air Corps during World War II. From 1957 to 1959 he was Under Secretary of the Air Force.

Mr. MacIntyre is a member of the American, District of Columbia, and Virginia Bar Associations as well as the Association of the Bar of the City of New York.

New Grants

Grants amounting to \$2,453,350 were voted during the first quarter of the fiscal year 1959-60, which began October 1, 1959.

The income for the fiscal year 1959-60 is now estimated at \$10,400,000. From this amount, \$900,000 has been set aside to meet commitments, including those for teachers' pensions, incurred in previous years. It is the Corporation's policy to spend all income during the year in which it is received.

Included among the grants voted during the past quarter are those listed below:

United States

American Assembly, for expenses of an Assembly on "Higher Education and the Federal Government," \$85,000.

American Association for the Advancement of Science, for a study of certification requirements for teachers of secondary school science and mathematics, \$81,000.

Brookings Institution, for a study of the appointment of federal executives, \$79,200.

California Institute of Technology, for research and teaching in certain humanistic and social science fields, \$330,000.

College Entrance Examination Board, for research and experimentation in elementary mathematics teaching, \$28,000.

Columbia University, for an inter-university program in Russian language learning, \$62,000.

Columbia University (Conservation of Human Resources Project), for a study of the factors associated with success after college, \$91,000.

Columbia University (Bureau of Applied Social Research), for a study of educational and career plans of high school seniors, \$21,850.

Foundation Library Center, for support, \$250,000.

Hollins College, for an experiment in teaching foreign languages by means of teaching machines, \$68,200.

Institute for College and University Administrators, for research and training relating to college trustees, \$37,600.

Library of Congress, for establishment of an Africana Unit, \$200,000.

University of Massachusetts, for a program of intern-fellowships in state public service, \$145,500.

University of Michigan, for development of the undergraduate Asia course and training and research, \$140,500.

North Central Association of Colleges and Secondary Schools, for a program for guidance and motivation of superior high school students, \$150,000.

Princeton University, for exploration of the uses of simulation techniques, \$24,200.

Syracuse University, for studies in the financing of public primary and secondary education, \$217,000.

Yale University, for support of a program of directed studies in science, \$100,000.

Carnegie Corporation of New York Quarterly

JANUARY 1960

Published quarterly by Carnegie Corporation of New York, 589 Fifth Avenue, New York 17, N. Y.

Helen Rowan, *Editor*

Each issue of the Quarterly describes only a few of many Carnegie-supported projects in a variety of fields. Full listings of all the Corporation's activities are contained in its annual reports, which usually are published in January.

Carnegie Corporation of New York is a philanthropic foundation created by Andrew Carnegie in 1911 for the advancement and diffusion of knowledge and understanding. It has a basic endowment of \$135 million and its present assets, reckoned at cost value, are approximately \$200 million. The income from \$12 million of this fund may be used in certain British Commonwealth areas; all other income must be spent in the United States.

The Corporation is primarily interested in higher education and in certain aspects of public and international affairs. Grants are made to colleges and universities, professional associations, and other educational organizations for specific programs. In higher education, these include basic research, studies of educational developments, training opportunities for teachers and administrators, and other educational projects of an experimental nature. In public and international affairs, the Corporation is concerned primarily with research and training programs which promise increased understanding of the problems the nation faces and which provide better selection and training of young men and women who must deal with these problems.

Board of Trustees:

Morris Hadley, <i>Chairman</i>	
Robert F. Bacher	Margaret Carnegie Miller
John W. Gardner	Frederick Osborn
Caryl P. Haskins	Gwilym A. Price
C. D. Jackson	Elihu Root, Jr.
Devereux C. Josephs	Frederick Sheffield
Nicholas Kelley	Charles M. Spofford
Malcolm A. MacIntyre	Charles Allen Thomas

Administration:

John W. Gardner, <i>President</i>
James A. Perkins, <i>Vice President</i>
Florence Anderson, <i>Secretary</i>
C. Herbert Lee, <i>Treasurer</i>
Stephen H. Stackpole, <i>Executive Associate, British Commonwealth Program</i>
John C. Honey, <i>Executive Associate</i>
Frederick H. Jackson, <i>Executive Associate</i>
William W. Marvel, <i>Executive Associate</i>
Alan Pifer, <i>Executive Associate, British Commonwealth Program</i>
Lloyd N. Morrisett, <i>Executive Assistant</i>
James W. Campbell, <i>Associate Treasurer</i>
Margaret E. Mahoney, <i>Associate Secretary</i>

